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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS.

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BOYS' AND GIRLS' CLUB WORK.

SELECTION AND CARE OF POULTRY BREEDING STOCK.

Prepared by the Animal Husbandry Division, Bureau of Animal Industry, United States Department of Agriculture.

HEALTH AND VIGOR.

One of the prime essentials in poultry breeding is to use only strong, vigorous, healthy stock. It is only by continuing to do this that a flock can be built up which will have strength and vigor and which will produce strong, fertile eggs, strong chicks capable of making quick growth, and pullets with sufficient stamina to stand the strain of heavy egg production. The appearance of a bird is not always a sure indication of its vigor, but appearance and action taken together are a fairly reliable basis for picking out vigorous birds. The comb, face, and wattles should have good, bright color; the eyes should be bright and fairly prominent; and the head should be comparatively broad and short, not long and snaky or crow headed. The bird should be alert and have a vigorous carriage. The legs should be set well apart and strongly support the body, with no tendency to weakness or a knock-kneed condition. (See fig. 1.) The bone as seen in the shanks should be strong, and not too fine for the breed. The plumage should be clean and smooth. Lack of condition often accompanies soiled, roughened plumage. Fowls that have been sick but apparently have recovered should not be used for breeding if it can be avoided.

PURPOSE OF THE BREEDING.

In selecting stock for the matings, the purpose of the breeding should be kept clearly in mind. If the desire is to produce exhibition stock, birds should be selected that are nearest the standard in type and markings or that will combine their qualities to produce offspring most nearly approaching the standard. If the desire is to produce table fowls, birds that have a body shape suitable for carrying an abundance of meat should be selected as breeders. They should be broad and deep of body, have good length both of back and keel and especially a



FIG. 1.—A knock-kneed cockerel. Do not use this kind for breeding.

broad breast well covered with meat. If the desire is to produce stock for eggs, birds should be chosen as far as possible that are good egg producers or are the sons or daughters of good egg producers.

TIME TO MATE.

Matings should be made at least two weeks before beginning to save eggs for hatching. If less time is allowed, the maximum fertility is not likely to be assured. It is often desirable to mate even farther ahead than two weeks so that a few eggs can be incubated for 5 or 6 days to see whether they are fertile. If these eggs are not fertile, there is still time to change the male bird and thus insure fertile eggs for the earlier hatches. Matings should be made not later than February 1

SIZE OF MATINGS.

The breed influences the size of the matings. Under yarded conditions it is usual and desirable to run from 12 to 15 females of the lighter type, such as the Leghorns, from 10 to 12 females of the general-purpose type, such as the Plymouth Rocks, and from 8 to 10 females of the heaviest type, such as the Brahmas, with one male. Where the breeding fowls have free range and the male is strong and vigorous, it is possible to obtain fertile eggs from a considerably larger flock of females. A vigorous Plymouth Rock cockerel on free range should give good fertility when mated to 20 to 25 females, while a Leghorn male under the same conditions can be mated successfully to 30 to 40 females. If eggs for hatching are desired from a flock too large for a single male to fertilize, two or more males can be run with it either at the same time or by alternating the males on successive days.

AGE OF BREEDING STOCK.

Pullets or hens, cockerels or cocks can be used in the breeding flock. Hens, however, are to be preferred to pullets because they lay larger eggs and seem to give better fertility and stronger chicks. Yearling and 2-year-old hens are to be preferred to older hens. Any birds, either male or female, that have proved to be especially valuable breeders should be retained as long as they will breed.

FREE RANGE FOR BREEDING STOCK.

If possible, the breeding stock should have free range. It is better if this be provided during the entire fall and winter before the breeding season; but if this be not possible, free range just preceding and during the breeding season will be of great value. Birds on free range will give a higher fertility, better hatches, and stronger chicks.

MAINTAINING THE FERTILITY.

The breeding flock should be watched to see that the fowls keep in condition. Examine the birds and houses to see that they are not infested with lice or mites. If the birds are overrun with either of these pests, the fertility will be affected seriously or totally destroyed. Care must be used also to see that the male does not get his comb or wattles frosted. If these are frozen to any extent, his ability to fertilize eggs will be impaired and will not be recovered for several weeks. When the weather is very cold the males intended for breeding should be placed in a box or crate partly covered with a bag or cloth to prevent freezing of the comb or wattles. It is also well to examine the male occasionally to see that his crop is full and that he is not growing thin. Sometimes the male is so gallant that he allows the hens to eat all the food, with the result that he soon gets out of condition. If this happens, the male must be caught up at least once a day and fed separately from the hens.

FEEDING THE BREEDING STOCK.

The breeders must be fed to keep them in good condition and at the same time to produce eggs. Any good ration fed to layers is suitable for this purpose, but it should not be extremely forcing, or, in other words, it should not have an extremely large proportion of beef scrap. The birds should be in good flesh but not be allowed to become excessively fat. All whole or cracked grain should be fed in the litter so as to make the fowls exercise by scratching for it. Unless the flock has access to some natural supply of green feed, which is not likely during and preceding the breeding season, it must be fed some of this material in the form of sprouted oats, cabbage, mangels, or cut clover or alfalfa.

NOTE.—This is one of a series of follow-up circulars (the K series) printed for the exclusive use of club members and club leaders. Other persons desiring poultry literature should write to their State agricultural college or ask for bulletins noted below.

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